

IN THE CLAIMS

Please add the following new claims:

54/112 26. (New) A system for time division multiplex (TDM) switching of traffic in a telephone node, comprising:
a computer-readable medium; and
software stored in the computer-readable medium, the software operable to receive a traffic stream including a plurality of traffic channels including discreet sub-channels, to write each traffic channel to a separate memory slot in an exchange memory, to write a sub-channel in a first memory slot to the first field in the second memory slot, to write a sub-channel in a third memory slot to a second field in the second memory slot, and to read a combined traffic channel including the sub-channels from the second memory slot to an egress time slot.

27. (New) The system of Claim 25, the software further operable to write a sub-channel in a fourth memory slot to a first disparate memory slot and to write a second sub-channel in a fourth memory slot to a second disparate memory slot.

28. (New) The system of Claim 25, the software further operable to write a sub-channel in a field of a fourth memory slot to a disparate field of one of the memory slots in the exchange memory.

29. (New) The system of Claim 25, wherein the traffic channel is a DS-0 and the sub-channel is a $\frac{1}{4}$ DS-0.

30. (New) The system of Claim 25, the software further operable to write each traffic channel to a separate random access memory (RAM) slot in an exchange RAM, to write a sub-channel in a first RAM slot to a first field in an exchange register of an exchange register bank, and to write a sub-channel in a second RAM slot to a second field in the exchange register.

31. (New) A system for processing traffic in a time slot interchanger (TSI) comprising:

a computer-readable medium, and

software stored in the computer-readable medium, the software operable to receive a traffic stream including a plurality of traffic channels, to write each traffic channel to a memory slot in an exchange memory, to read a traffic channel stored in a memory slot, to modify data to generate a modified traffic channel, and to write the modified traffic channel to a memory slot.

32. (New) The system of Claim 31, the software further operable to modify the data based on logic operations provided with an instruction word for the TSI.

33. (New) The system of Claim 31, the software further operable to write the modified traffic channel to a disparate traffic channel.

34. (New) The system of Claim 31, the software further operable to determine a value of the data in the traffic channel and to perform a specified action when the data has a specified value.